

CLAIMS

We claim:

1. A method for encoding integer data comprising:  
providing a unique variable bit length binary representation of the absolute value  
of said integer data;  
appending to said unique variable bit length binary representation a single bit  
representing the sign of said integer data.
2. The method of claim 1 wherein said single bit is zero for integer data that  
is less than or equal to zero.
3. The method of claim 1 wherein said single bit is one for integer data that  
is less than or equal to zero.
4. The method of claim 1 wherein said single bit is zero for integer data that  
is greater than or equal to zero.
5. The method of claim 1 wherein said single bit is one for integer data that  
is greater than or equal to zero.
6. The method of claim 1 wherein said unique binary representation  
comprises a leading portion and a value portion.
7. The method of claim 6 wherein said leading portion encodes the length of  
said value portion.
8. The method of claim 6 wherein said leading portion comprises a number  
of identical bits equal to the number of bits in said value portion.

9. The method of claim 8 wherein said number of identical bits comprises bits having a value of zero.

10. The method of claim 6 wherein said value portion comprises the significant bits of said absolute value of said integer data written in a binary base system.

11. The method of claim 6 wherein said leading portion precedes said value portion.

12. The method of claim 1 wherein said integer data comprises data from a data set having a most probable value.

13. The method of claim 12 wherein the occurrence of said most probable value is specified separately.

14. The method of claim 12 wherein said data set comprises image data.

15. The method of claim 1 wherein:  
said integer data is denoted by "N" and has an absolute value binary representation "A" having "L" significant bits;  
said unique variable bit length binary representation comprises L zeros followed by A.

16. The method of claim 1 wherein said unique variable bit length binary representation is used to compress said integer data.

17. The method of claim 1 wherein said unique variable bit length binary representation is an entropy code.

18. The method of claim 17 wherein said entropy code is a Huffman code.

19. The method of claim 17 wherein said entropy code is a Golomb code.